AMENDMENTS TO THE SPECIFICATION

Please amend the specification as indicated below. The language being added is underlined ("__") and the language being deleted contains either a strikethrough ("—") or is enclosed by double brackets ("[[ ]]").

Please substitute the following annotated paragraph for the paragraph beginning on page 2, line 13:

Prior to any transmission of actual data between the central office ADSL transceiver unit (ATU-C) and the remote ADSL transceiver unit (ATU-R), the two entities must first undergo [[a]] an initialization procedure designed to familiarize the two entities with each other, identify the bandwidth capabilities for the current session, and further facilitate the establishment of a valid connection. Pursuant to ADSL standards provided by the International Telecommunication Union--Telecommunication Standardization Sector (ITU-T), these initialization procedures comprise the following: 1) a handshake procedure; 2) a transceiver training session; 3) a channel analysis session; 4) an exchange session; and finally 5) an actual data transmission session commonly referred to as "showtime."

Please insert the following paragraphs at page 18, line 3, immediately preceding the subheading "DETAILED DESCRIPTION OF THE INVENTION".

BRIEF DESCRIPTION OF THE DRAWINGS

The invention can be better understood with reference to the following drawings. The components in the drawings are not necessarily to scale, emphasis instead being placed upon clearly illustrating the principles of the present invention. Moreover, in the drawings, like reference numerals designate corresponding parts throughout the several views.

FIG. 1 illustrates a conventional timing model for ISDN/ADSL systems.

FIG. 2 shows a block diagram illustrating a deployment guideline for ADSL systems

FIG. 3 illustrates a Dual Bit Map Overlap (DBMOL) PSD mask.

FIG. 4 illustrates an AOL downstream spectral mask.

FIG. 5 is a table depicting the spectral compatibility of the A.X systems into First Group systems when a 24 Intra-Quad Interferers are assumed.

FIG. 6 is a table depicting the spectral compatibility of the A.X systems into First Group systems when a 24 Intra-Quad Interferers are assumed.

FIG. 7 is a table depicting depicts the spectral compatibility of the A.X into First Group systems for the case when Intra-Quad Interferer is assumed ($A.X_1$)

FIG. 8 depicts the use of the ADSL+ overlapped mode PSD mask for CO deployment.

FIG. 9 illustrates the performance of 2.208 MHz band ADSL extended spectrum operating in the same bundle as TCM-ISDN.

FIG. 10 depicts an overlapped ADSL + PSD mask for CO deployment.

FIG. 11 depicts a non-overlapped ADSL+ PSD mask for CO deployment

FIG. 12 depicts an ADSL + Over POTS PSD mask for CO deployment in non-overlapped mode.

FIG. 13 depicts an ADSL + Over POTS PSD mask for cabinet deployment in non-overlapped mode.

FIG. 14 depicts an ADSL + Over ISDN PSD mask for CO deployment.

FIG. 15 depicts an ADSL + Over ISDN PSD mark for cabinet deployment.

FIG. 16 illustrates exemplary results obtained using averaging over 32 TCM-ISDN periods (80 ms).

FIG. 17 illustrates a simulated performance of an exemplary HTSU-R receiver utilizing a handshake symbol reduction rate of one-half for carrier set C43.

FIG. 18 illustrates PILOT 64 SNR vs. distance.

FIG. 19 illustrates TTR 48 SNR vs. distance.

FIG. 20 illustrates PILOT 64 SNR vs. distance.

FIG. 21 illustrates TTR 48 SNR vs. distance.

FIG. 22 illustrates PILOT 32 SNR vs. distance.

FIG. 23 illustrates TTR 24 SNR vs. distance.

FIG. 24 illustrates PILOT 32 SNR vs. distance.

FIG. 25 illustrates TTR 24 SNR vs. distance.

FIG. 26 illustrates the loop attenuation vs. frequency according to the number of bridge taps.

Please substitute the following annotated paragraph for the paragraph beginning on page 65, line 10:

A HSTU-C which chooses to select carrier sets A43 and C43 with reduced symbol rate (269.53125 symbols per second) may respond to R-TONE1 by transmitting Galfs on modulated carriers (C-GALF1) using the reduced symbol rate. C-GALF1 is an octet of value [[8116]] 81_{16}, i.e. a phase transition at the beginning and at the end of each octet will be transmitted. By counting these transitions, the HSTU-R can determine the symbol rate the HSTU-C has chosen in a reliable way. This ensures the HSTU-C keeps control of the mode and, in particular, if the HSTU-C is in the current standard mode then the HSTU-R will not transition to a reduced rate mode thereby ensuring backward compatibility. It may maintain this symbol rate throughout the subsequent handshake procedure.